10.0 NATIVE AMERICAN RELIGIOUS CONCERNS

Past, present, and reasonably foreseeable activities in the region may result in a cumulative impact to resources of importance to Native Americans. The need to consider these potential impacts is addressed in the Archaeological Resources Protection Act, the National Historic Preservation Act, the American Indian Religious Freedom Act, the Native American Graves Protection and Repatriation Act, and Executive Order 13007. BLM guidance is contained in the Native American Consultation Handbook (8160) and its supplement (8160-1).

The Elko Field office of the BLM initiated Native American consultation with regard to the cumulative dewatering assessment on October 1, 1998. BLM efforts to engage in consultation have been ongoing since that date. The consultation process was initiated with the Te-Moak Tribe, the Duck Valley Tribe, the Fort Hall Tribe, the Battle Mountain Band, the Elko Band, the Wells Band, the South Fork Band, the Western Shoshone Historic Preservation Society, and the Western Shoshone Defense Project. Letters were sent via certified mail to each tribe, band, and organization (see Appendix G). Numerous telephone calls were made, and faxes were sent in an effort to set meeting dates, places, and times. Several informational meetings were held. In each case, impacts of mine dewatering on Western Shoshone culture were discussed. Through the consultation process, the BLM requested information from the Western Shoshone about culturally important or sacred sites that may be impacted by mine dewatering within the predicted 10-foot drawdown area as depicted to the Native Americans during consultation (see Figure G-1 in Appendix G).

Native Americans are concerned with the public distribution of information regarding the location and nature of many traditional places. Specific information provided to the BLM has been held as confidential. Given the sensitivity of this issue, the current analysis addresses types of resources rather than specific resources. The only exception is traditional cultural properties that are widely known and for which information is available in the public domain.

Consultation and research conducted as a part of this assessment resulted in the identification of general issues that require consideration as part of the cumulative impact assessment. Those general issues include the following:

- Potential impacts to elements of traditional lifeways that currently occur in the assessment area need to be assessed. In particular, impacts to plant and animal species that are the subject of resource procurement activities must be identified. The Western Shoshone expressed concern with the regional decline of sage grouse habitat.

- Water is life. In acknowledgement, the Western Shoshone have expressed concern regarding impacts that would affect surface waters such as springs (hot and cold) and streams. The quality of the water is also of concern to the Western Shoshone.

- Potential impacts to National Register eligible traditional cultural properties, known or presumed Native American grave sites, and places of historical significance to Native Americans must be assessed.

- Potential impacts that would limit the ability of the Western Shoshone to maintain traditional religious practices currently conducted in the assessment area must be assessed.

- Potential impacts to natural elements that may in turn cause changes in Western Shoshone cosmology must be assessed.

It is recognized that there is no single Western Shoshone viewpoint regarding these matters (Crum 1994:ix). Rather, a diversity of perspectives exists. Information presented herein represents a composite view drawn from cited resources.

10.1 Affected Environment

Ethnographic, historical, and agency data were reviewed to identify places and resources important to Western Shoshone. That review focused on several specific facets of Western Shoshone history and culture.

10.1.1 Western Shoshone Ethnography

The cumulative effect assessment area lies within the ethnographic territory of' the Western Shoshone. The Western Shoshone called themselves the *Newe* (the people) and they called their homeland *Pia Sokopia* (Mother Earth). The purpose of the following discussion is to characterize briefly the aboriginal lifeway of the Western Shoshone. Ethnographic sources include Steward (1938) and Harris (1938, 1940). Recent ethnographic reviews include those by Murphy and Murphy (1960), Janetski (1981), and Thomas, et al. (1986). Histories are offered by the Inter-Tribal Council of Nevada (1976) and Crum (1994).

The Western Shoshone, members of the Uto-Aztecan linguistic family, inhabited an area extending from southeast California into northwest Utah. Their neighbors included the Northern Shoshone to the north, the Ute to the east, the Southern Paiute to the south, and the Northern Paiute to the west.

The nuclear family was the basic unit of Shoshone society. Nuclear families conducted most subsistence activities and were largely self-sufficient. Three to ten families jointly occupied semi-permanent camps during the winter months and foraged together for parts of the year. The Shoshone joined into larger groups only when resources were sufficiently concentrated to allow cooperative harvests. These gatherings were often the occasion for fandangos, festivals that provided an opportunity for courtship, socializing, and dancing.

The Shoshone utilized a flexible subsistence and settlement system, one based on the scheduling of activities according to the seasonal availability of food. In the spring, Shoshone dispersed in family groups, each of which foraged for greens and roots on valley floors. Small mammals were an important meat source. They could be hunted with bow and arrow, snares, or deadfalls. Also, their burrows could be flooded or the animal could be dug out of its burrow. Deer were stalked by individual hunters.

Various seeds and roots were gathered including cattail, arrowcane, tule, chenopod seeds, prickly-pear, wild onion, bitterroot, and yampa. Summer gathering strategies focused on ripening grass seeds. These became available on valley bottoms first and then up slope as the season progressed. Seeds were harvested either by knocking them into burden baskets or by cutting seed heads from stalks. Seeds were winnowed, ground, and either prepared for consumption or stored. Berries and roots were gathered in late summer and early fall. Small animals continued to be an important resource throughout the summer. Mountain sheep were hunted by small groups who ambushed the sheep from blinds.

The subsistence pattern changed in the fall. Multiple families assembled to procure large amounts of food for storage at winter base camps. Piñon was an important plant resource in the fall. Long hooked poles were used to shake cones from trees, while other cones could be picked from the ground. Cones often were stored in aboveground caches or open pits, while nuts were stored in sealed underground pits. Piñon were sparse in areas north of the Humboldt River. Groups often traveled long distances to secure the seeds that were then transported back to winter village sites. After the piñon harvest, people sometimes gathered for antelope and jackrabbit drives on valley bottoms. Jackrabbits were driven into nets where they were clubbed. Antelope were driven into large corrals where they were dispatched by archers or, more often, clubbed. Western Shoshone also made occasional forays to the Snake River to fish for salmon during the fall spawning run.

The Western Shoshone depended on stored food during winter months. Piñon and other stored seeds could be supplemented by collecting cactus and the roots of marsh plants such as cattails and bulrush. Mountain sheep could be hunted at lower elevations in the winter and ice fishing sometimes occurred along the Humboldt River.

10.1.2 Western Shoshone Ethnohistory

At the time of their first contact with Euro-Americans, Western Shoshone groups in and near the study area were concentrated around what is now Palisade, Carlin, Elko, and Maggie Creek (Steward 1938). Each group was composed of small family groups that lived independent of one another for much of the year. Each group's territory included several semi-permanent camps where members of various families joined together for festivals and communal harvesting of plants, animals, and fish (Steward 1938; Thomas et al. 1986).

The Maggie Creek group had a winter village midway up Maggie Creek, about 20 miles north of the Humboldt River (Figure 3-1). There are no historic population estimates for the Maggie Creek group, but early sources note that people from both the Snake River and the Upper Humboldt occasionally wintered in Independence Valley, immediately north of Maggie Creek. Historic documents specifically mentioning the Western Shoshone along Maggie Creek or elsewhere within the area are scarce.

The first whites to venture into Western Shoshone homeland were Peter Skene Ogden and his groups of trappers. They passed through the area in the fall of 1828 and again in the spring of 1829. The group trapped beaver from area streams and their stock ate grass seed depended upon by the Western Shoshone. Ogden reported a large group of Indians living in the study area along Maggie Creek

(Williams 1971). When Joseph Walker and his party passed through in 1833, few beaver were found and the party soon moved on.

Disruption of traditional life ways became more pronounced in the mid-1840s and continued through the 1860s. The Emigrant Trail experience saw tens of thousands of whites and their livestock moving along the Humboldt River each summer. Mining and the nascent ranching and farming industries brought about a year-round white presence in the Western Shoshone homeland. The Western Shoshone survived the resulting depletion of resources by shifting emphasis to native foods only lightly touched by whites and their livestock – pine nuts, deer, and antelope (Crum 1994:15).

As the presence of whites became more pronounced throughout the region, traditional life ways became more constrained. Conflicts between Indians and whites occurred, prompting the establishment of a military presence. Agents of the Federal government began discussions with the Western Shoshone in an attempt to ease tensions, to discuss a peace treaty, and, eventually, and to discuss the establishment of reservations. This process resulted in the Treaty of Ruby Valley, an agreement that is still widely contested. Land claim disputes stemming from the treaty remain an ongoing social, legal, and political issue among the Western Shoshone. Although the U.S. Supreme Court in 1985 determined that the Western Shoshone had been paid for the lands covered by the Treaty of Ruby Valley, many Western Shoshone argue that the land was never ceded to the U.S. Government. Many Western Shoshone traditionalists feel a strong cultural connection to the territories geographically defined by the Ruby Valley Treaty.

Following the treaty, white settlement of the region increased dramatically. Growth of the livestock industry and the cutting of woodlands in support of the mining industry had a pronounced impact on traditional food sources. Continuance of a traditional life way became increasingly difficult. Gradually, Western Shoshone began to farm or raise cattle on the established reservations (first at the Carlin farms 1877-1878, then at Duck Valley), to work for farmers and ranchers, or to work in the towns that developed along the railroad and near the mines. By the turn of the century, most Western Shoshone in the study area were involved, to some degree, in economic pursuits definable in the context of white culture. Traditional land uses persist to this day, but few if any Western Shoshone continue to pursue a partial or wholly traditional life way.

10.1.3 Western Shoshone World View

Information on Western Shoshone world view and religious beliefs is contained in Miller (1983a, 1983b), Harris (1938, 1940), Janetski (1981), Liljebald (1986), Hultkrantz (1986), Clemmer (1990), and Harney (1995). The following discussion provides general information on the Western Shoshone world view, as well as the role of plants, animals, and artifacts in that world view.

10.1.3.1 General Discussion

The Western Shoshone trace their occupation of the Great Basin to when the earth was young - back to when “animals were people” (Miller 1983a:70). At that time, everything was under water except mountain tops. Coyote and Wolf figure predominantly in creation stories, while prominent mountain peaks are honored as sacred places associated with creation. When the water receded, people descended to the foothills

where there were springs. The people were then told, “anything that comes to the world after the drying up of the water shall be your relative” (Tom Austin, in Lowie 1925). Plants and animals, which did appear after people, are considered by the Western Shoshone to be their relatives.

Religions of Native American groups in the Great Basin exhibit a strong association with the earth. The earth, with all of its biophysical components, is believed to be a living being (Hultkranz 1986). The Western Shoshone way of life is characterized by the concept of living in harmony with the natural environment. Because it provides for their needs, the Western Shoshone have a strong regard for the land (Crum 1994:12). They perceive sacredness everywhere. As noted early on by Bancroft (1883:440-441), “they are lovers of their country; not of fair hills and fertile valleys, but of inhospitable mountains and barren plains.” Theirs was a well-planned way of life, one in which they took care not to upset the balance of the environment of which they were a part (ITC 1976).

The Western Shoshone recognize the interdependence of all living things. Human existence is not possible without the natural environment and the continued survival of other living things. As a result, humans, especially Native Americans, have an obligation of stewardship. Rituals and ceremonies address the need to ensure that plants, animals, and physical elements of Mother Earth continue to flourish (Suagee 1982:10-12). The continued welfare of the Western Shoshone and Mother Earth depends on these rituals and ceremonies being performed properly. The manner of performing the rituals and ceremonies, the places at which they are performed, and perhaps even the time of their performance are often prescribed. The need to conduct this renewal process is continual and is ongoing.

A central feature of Western Shoshone religious belief is that supernatural power, or *Puha*, has permeated the earth since its creation. Religious behavior revolves around the acquisition of *Puha*. Sources of *Puha* are numerous, including sources of water, prominent mountain peaks, and caves. Animals and, to a lesser extent, plants have power and this power can be conveyed to people by supernatural spirits who control individual species. Because power is attracted to life, it remains present in places where people have lived, particularly around graves. Other power sources are commonly associated with water (springs, lakes, water holes, rivers, and creeks), mountains, mountain passes, hidden valleys, caves, or the tops of prominent, isolated rock formations.

Religious expression takes several primary forms - ceremonies; individual prayer to the spirits of plants, animals, water, power spots, and little men; and use of power spots for vision questing (acquisition of a guardian spirit), curing, and doctoring. The most frequent form of expression is the individual prayer. Prayers are made to the spirits of plants and animals, to the little men, and were especially important in connection with places where spirits may live or places regarded as power spots (Clemmer 1990). Individual guardian spirits are different than game spirits or little men. One has to be sent to a mountain by a shaman. There, one receives instructions from the guardian spirit.

The Western Shoshone were guided by spiritual leaders who were highly regarded for their knowledge of medicinal plants and their understanding of other living beings, human and animal (Crum 1994:9). People who exhibit discipline and strength may obtain special power. For example, a shaman may obtain the power to heal illnesses or injuries. Relatively few people became shamans. A shaman either inherits his power or

receives it through participation in vision quests sought at power spots, usually on mountains or at a spring. Most people participated in rituals associated with hunting, gathering, and major life changes - birth, puberty, marriage, and death. Most rituals were intended to maintain a balance between potentially dangerous spiritual powers that are present in nature. Power also may be used for non-legitimate, malevolent, purposes. Also, certain spirits may, in some circumstances, act in a malevolent manner.

Today, Western Shoshone religion has three primary expressions: sun-dancing; individual prayer to the spirits of plants, animals, power spots, and to little men; and use of power spots for vision questing, curing, or doctoring. Continuance of Shoshone religion depends, to some extent, on maintaining the sun dance, but more on maintaining power spots, and on maintaining the presence of little men and the owner spirits of plants and animals.

10.1.3.2 The Role Played by Water Sources in the Western Shoshone World View

The general association of spirits and lakes, springs, and water holes in the Great Basin is well known (Hultkranz 1986:633). Present throughout the landscape, *Puha* has an affinity for water. Even though it is diffused throughout the landscape, *Puha* also concentrates "in web-like currents linked to mountain peaks and water sources" (Miller 1983a). The Western Shoshone visit springs to gather medicinal herbs and water, and to show their respect to such spirits as water babies (female spirits who live in artesian springs). Spirits "travel widely in all forms of water, even irrigation ditches" (Miller 1983b), and influence the well-being of the Western Shoshone.

10.1.3.3 The Role Played by Plants and Animals in the Western Shoshone World View

The Western Shoshone view the world from a holistic perspective. The world is composed of numerous integrated parts. They believe that plants and animals have their own human-like life force and that they have rights similar to those of people. A plant is bonded to the place where it grows, other plants that are located around it, and the people and animals that use it. These interdependencies, many of which are unknown, are a part of the supernaturally created plan for the world. Given the interdependence of all living things, even those species that are of central importance in material culture are recognized to depend upon other species for their own existence.

The Western Shoshone feel that plants were placed where they are now located, and that they were put there for a reason, just like people. As a result, even common plants have a primary relevance to creation stories, myths, and legends. This relevance is evidenced by the fact that, prior to its harvesting, the plant is asked by the user to provide the necessary function, thereby enhancing the user's or group's well-being. The plant is thanked for its cooperation. Plants used by wildlife are set aside and not used, because people in return use the wildlife. The Western Shoshone are careful to take only what they need and to offer prayers to plants they do use.

The Western Shoshone see themselves as growing on the land like plants and animals. Plants, animals, and humans are interconnected with one another and with the land. For example, plants protect one

another. If one plant is removed, others are put in danger through the disturbance of their relationship with other plants and with the land. Since plants are a part of the land, their removal by humans affects the relationship between humans and plants, and between humans and the land in general.

10.1.3.4 The Role Played by Artifacts and Archaeological Sites in Western Shoshone World View

Power is attracted to all life and it remains in places where people lived previously. This is particularly true of villages and other sites occupied repeatedly or over prolonged periods. Gravesites also are reservoirs of power. The alteration of these places is of concern because it disturbs traces of the past and existing power relationships.

Records reviewed as a part of this study indicate that Tosawihi chert, a lithic material found at prehistoric quarries in the northernmost portion of the cumulative assessment area, is a source of *Puha* for Western Shoshone who identify themselves as Tosawihi (Clemmer 1990). Some claim a religious association with Tosawihi Chert, especially in modified form. Tools made of Tosawihi chert are used in doctoring, and are carried as a talisman.

10.1.4 Specific Resources Identified

Several types of resources or specific resources were identified during literature review or as a result of consultation. Those resources include the following:

The Tosawihi Chert Quarry is a BLM-designated traditional cultural property. The Tosawihi Quarry is the heartland of those Shoshone who identify themselves as Tosawihi. They still use the quarry as a place to hunt and collect chert. The white chert has a symbolic value as a material and is a physical expression of their identity. Chert from the quarry has religious value as a source of spiritual power and forms an integral part of Western Shoshone religious practice and expression. The Tosawihi Quarry is at the center of a larger area used for power acquisition that extends along Willow Creek and included the Tuscarora and Midas areas. People who wanted power for healing or hunting went to special places in this area where they fasted and received visions.

The Rock Creek Area is a BLM-designated traditional cultural property. Specific areas of concern include known burials, a power/vision quest spot on Rock Creek, and the confluence of a hot and cold creek near where Rock Creek enters a steep canyon.

Native Americans are concerned with the public distribution of information regarding the location and nature of many traditional places. The listing provided above addresses only those places that are widely known and for which information is available in the public domain. Other information provided to the BLM as a part of ongoing consultations has been held as confidential.

10.2 Impacts to Issues of Native American Concern

For purposes of discussion, the following analysis is keyed to specific concerns identified at the beginning of this section.

10.2.1 Impacts to Plants

As identified in Section 4.2 of this document, there are an estimated 600 acres of riparian/wetland vegetation in areas where perennial waters could be impacted by ground water drawdown (Figure 3-15). An estimated 18 acres wetland vegetation associated with isolated springs and seeps also occur in areas where perennial waters could be impacted. Portions of the assessment area where riparian areas are present that could experience impacts are depicted in Figure 4-2. Analyses contained in Chapter 4.0 of this document do not address whether or not ground water drawdown could cause changes to other vegetation communities found within the assessment area. Although located outside the maximum drawdown area, hydrologic modeling simulations indicate that baseflow along the lower reach of Rock Creek could decrease (see Figure 3-18); this reduction could result in the loss of some riparian vegetation currently present along this reach. Effects to riparian vegetation are predicted to reach their maximum intensity about 100 years postmining and to gradually lessen as the ground water system rebounds.

The Western Shoshone place a high degree of cultural value on plant resources. Comparisons of traditional and current plant use reveal substantial overlap. Most species used traditionally remain in use. Actions addressed by the cumulative impact analysis could result in the loss of plants that otherwise would have been available for use by Western Shoshone. Gathering practices important to the maintenance of Western Shoshone cultural traditions may be impacted. Changes in the structure of plant communities would cause disruption among spirit forces. Little men and plant spirits would likely leave the area, affecting the distribution and availability of other plant resources (Clemmer 1990).

10.2.2 Impacts to Animals

As noted in Section 5.2, a reduction in riparian and wetland vegetation would affect terrestrial wildlife dependent on those resources. Impacted riparian/wetland vegetation and surrounding areas would support a lower diversity and reduced number of riparian dependent wildlife species. Species that could be impacted include big game (mule deer and antelope) and upland game birds (sage grouse, mourning dove, and chukar). Raptors and songbirds could be affected, but to a lesser extent.

Animals are of particular importance to the Western Shoshone. Many species continue to be an important subsistence resource. Actions addressed by the cumulative impact analysis could impact the abundance and distribution of many animal species and their habitat. Depending on the availability of alternate habitat, some animals could be lost from the population. Of particular concern, the ongoing regional decline of sage grouse and their habitat could be exacerbated (see Section 7.2.1.10). Sage grouse are considered sacred, and the hunting of these birds is important to the maintenance of Western Shoshone cultural identity. The

continued presence and availability of sage grouse, along with that of other animal species, is important to the maintenance of Western Shoshone cultural traditions.

Also, a loss or redistribution of wildlife species would cause the disruption of spirit forces present in the area. Little men and animal spirits would likely move or may leave the area, affecting the distribution and availability of other game (Clemmer 1990). This may impact hunting activities important to the maintenance of cultural traditions.

10.2.3 Impacts to Water

Since "water is life," the Western Shoshone express particular concern regarding any impacts that may occur to surface waters such as springs and streams. Mine dewatering has been ongoing in the study area for some time. Monitoring conducted to date by Newmont and Barrick is summarized in Sections 3.2.3.1 and 4.1.1 of this document. Current limits of ground water drawdown and mounding are shown in Figure 3-13. These data indicate that several springs have either dried up or exhibit a reduced flow, and that along one drainage (Brush Creek) the streamflow and vegetation have been impacted (ABC 1997, 1999). Some of these impacts may be due to mine dewatering.

Detailed ground water modeling predictions are described in Section 3.2.3. The modeling indicates that the extent of the cone of ground water drawdown associated with the proposed mining activities would increase over time. The maximum extent of the 10-foot drawdown is predicted to occur some 100 years postmining. The maximum drawdown area is divided into areas in which perennial waters could potentially be impacted, and areas where perennial waters are less likely to be impacted (see Figure 3-15). Beaver Creek, Little Beaver Creek, Coyote Creek, Little Jack Creek, Indian Creek, Cottonwood Creek, Lynn Creek, Simon Creek, Willow Creek, Rock Creek, Boulder Creek, Bell Creek, Brush Creek, Rodeo Creek, Upper Antelope Creek (and its tributaries), North Antelope Creek, Squaw Creek, Marys Creek, and Maggie Creek are listed as streams that could be affected. Selected creeks were analyzed to predict the maximum reduction in baseflows (see Figure 3-18). The model simulations indicate that if the drawdown cone expands to the west as predicted by the HCI model (HCI 1999a) baseflows along lower Rock Creek could be reduced. Also, some loss in flow could occur at the Carlin Springs (hot and cold). Noticeable change in the water balance are predicted to occur in the Boulder Flat and Maggie Creek hydrographic areas, and to a lesser extent in the Rock Creek hydrographic area. The Rock Creek water balance would recover by about 2061. Minor changes could occur in the Marys Creek and Susie Creek area, while no change is predicted in the Willow Creek area.

As discussed in Section 3.2.3.2 of this document, it is not possible to identify conclusively which springs would or would not be impacted. Impacts to perennial waters are most likely to occur over only a portion of the maximum potential drawdown area. Areas where perennial waters may potentially be impacted by ground water drawdown are shown in Figure 3-15. Springs and seeps located in these areas could experience some reduction in flow.

Actions considered in the cumulative impact assessment would operate in compliance with provisions of the Clean Water Act. Any discharge would need to be permitted by the Nevada Bureau of Water Pollution

Control. Section 3.3 of this analysis identifies the need to address possible impacts to water quality in the Humboldt Sink.

Water sources are of special importance to the Western Shoshone both for their resource and their spiritual value. The maintenance of plant and animal communities is dependent on the availability of water derived from stream, springs, and seeps. A reduction or loss of flow from streams, springs, and seeps would alter the distribution and disposition of spirit forces associated with water. Impacts to Rock Creek would be of particular concern. Maintaining a relationship with these forces is integral to the spiritual life of the Western Shoshone. A reduction or loss of these flows would cause a disruption among spirit forces. Water babies, little men, and spirits found in and around the impacted water sources would likely leave. This may have an impact on the maintenance of Western Shoshone cultural traditions.

10.2.4 Impacts to Traditional Cultural Properties, Grave Sites, and Historic Sites

During the consultation process, the Western Shoshone referenced the Tosawihi Quarry and Rock Creek traditional cultural properties, and stressed the importance of continued access to these properties in the maintenance of cultural and traditional beliefs. The Western Shoshone consider information about the location of elements associated with these properties to be confidential. Of particular concern to the Western Shoshone is the lower reach of Rock Creek (that portion located south of Antelope Creek) and springs in the general vicinity of the current Hollister Mine.

The Tosawihi Quarry Traditional Cultural Property is located within the maximum extent of the 10-foot drawdown that is predicted to occur. Perennial streams, springs, and seeps present in the immediate vicinity of the Tosawihi Quarry Traditional Cultural Property appear to have a low probability of being impacted by ground water drawdown. However, areas where perennial waters may be impacted are located near the Tosawihi Quarry. These include reaches of upper Antelope Creek and its tributaries, a few isolated springs in the Willow Creek area, and, most importantly, the lower portion of North Antelope Creek. Given their location near these potentially impacted areas, impacts to springs and seeps at the Tosawihi Quarry could occur. Any such impact would most likely occur as drawdown approached its maximum areal extent (100 years postmining).

The Rock Creek Traditional Cultural Property is located just outside the outermost extent of the predicted 10-foot drawdown. Perennial streams, springs, and seeps present in the immediate vicinity of the property appear to have a low probability of being impacted by ground water drawdown. However, based on model simulations, baseflows along portions of Rock Creek could be reduced (Figure 3-18). This could result in a concomitant, long-term reduction of riparian plant species. These impacts could occur along a portion of Rock Creek that is of greatest concern to the Western Shoshone. Such impacts could occur as drawdown approached its maximum areal extent (100 years postmining).

Based on these data, it appears that some level of impact may occur to the Tosawihi Quarry and the Rock Creek traditional cultural properties. Physical impacts could take the form of reduced flows in area streams and springs, and the modification of plant and animal species dependent on those waters. These impacts

could most likely occur as drawdown approached its maximum areal extent (100 years postmining). Spiritual impacts may occur due to the disruption of forces associated with those waters, plants, and animals. Such impacts, either physical or spiritual, could affect the ability of Western Shoshone to maintain cultural traditions.

10.2.5 Impacts to Traditional Religious Practices and Cosmology

Spirits can be benevolent or malevolent, depending on how they are treated. Many Western Shoshone rituals are directed at controlling the use of power and balancing the potentially dangerous spiritual powers that pervade nature. Western Shoshone religion is focused on maintaining the integrity of power spots, maintaining the presence of little men, maintaining their relationship with the owner-spirits of plants and animals, and maintaining life-giving forces such as the sun, earth, and water. Correcting neglected or abused relationships between humans and spirits is a major aspect of Western Shoshone religion.

This cumulative impact assessment documents the extent to which ground water drawdown may affect stream, spring, and seep flows in the assessment area. It also addresses the concomitant changes that may occur to vegetation patterns and wildlife distribution. Any such changes, individually and collectively, could impact the integrity of power spots, disrupt the flow of spiritual power (*Puha*), and cause the displacement of spirits (e.g., little men and water babies). Any such effects would have an impact on Western Shoshone spiritual life and cosmology, and may limit their potential to participate in traditional religious activities.

The Western Shoshone consider the modification of power relationships to be dangerous. Altering the intricate web of power relationships that occur over a landscape affects the basic relationship between the Western Shoshone and Mother Earth. The potential to balance malevolent powers that pervade nature becomes diminished. The very character of the spiritual realm would be modified. The potential for such an effect is of particular concern to the Western Shoshone because impacts associated with ground water drawdown would be so interwoven, and because the resultant disruption of spirit forces could occur over such a wide area.